

CLAIMS

1. A syringe pump including a syringe barrel size sensor mechanism (200) including a movable member (201) mounted for contact with the syringe barrel (82), a plurality of sensors (217, 218 and 219) and a plurality of flags (207, 208 and 209), the movable member being arranged to effect relative movement between the flags and the sensors, characterised in that each sensor (217, 218 and 219) is responsive to a flag (207, 208 and 209) to provide a first or second output according to the position of the flag relative to the sensor, and that the flags and sensors are arranged such that the output of at least one sensor changes from the first to the second state and then back to the first state for relative movement between the flags and sensors in one direction.
2. A syringe pump according to Claim 1, characterised in that all of the sensors (217, 218 and 219) change from the first to the second state and then back to the first state for relative movement between the flags (207, 208 and 209) and the sensors (217, 218 and 219).
3. A syringe pump according to Claim 1 or 2, characterised in that the flags (207, 208 and 209) and sensors (217, 218 and 219) are arranged such that the movable member (201) is movable between a position in which a sensor (217, 218 and 219) is exposed on one side of a flag (207, 208 and 209), through a second position where the flag is aligned with the sensor to a third position where the sensor is exposed on an opposite side of the flag.
4. A syringe pump according to any one of the preceding claims, characterised in that the movable member includes an arm (201) pivotally mounted at one end (202) and having its other end (203) arranged to contact the syringe barrel (82).
5. A syringe pump according to any one of the preceding claims, characterised in that the movable member (201) has an overcentre action.

6. A syringe pump according to any one of the preceding claims, characterised in that the flags (207, 208 and 209) are movable with the movable member (201) and that the sensors (217, 218 and 219) are fixed with the pump housing (7).
7. A syringe pump according to any one of the preceding claims, characterised in that the sensors are optical sensors (217, 218 and 219).
8. A syringe pump according to any one of the preceding claims, characterised in that the barrel size sensor mechanism (200) includes three sensors (217, 218 and 219) and three flags (207, 208 and 209).